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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,042	03/25/2004	Andrew Michael Duggan	CRUI/0012	5804

7590 10/09/2007
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Houston, TX 77056

EXAMINER

WOLFE, DEBRA M

ART UNIT	PAPER NUMBER
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3725

MAIL DATE	DELIVERY MODE
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10/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/809,042

Applicant(s)

DUGGAN ET AL.

Examiner

Debra Wolfe

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35, 37-72, 74-89 and 95-100 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☒ Claim(s) 100 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-19, 22, 23, 25, 29-35, 42-44, 49, 52, 53, 63-65, 98 and 99 is/are rejected.
- 7) ☒ Claim(s) 5 and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____



FINAL REJECTION

Election/Restrictions

Claims 95-97 are withdrawn from consideration as being drawn to a non-elected species. Claims 95-97 read on species II that was not elected in the response to the election restriction (see response filed on 7/5/2006).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 6-19, 22, 23, 25, 29-35, 42, 43, 49, 52, 53, 63-65, 98 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metcalfe et al (US Patent # 6,543,552 B1) in view of Clark (US Patent # 2,499,630). Metcalfe et al discloses an apparatus for lining a wellbore having an expansion device (20) having expansion members (42) adapted to expand a tubing by inducing a compressive yield and expansion members (38) adapted to expand a tubing by inducing a hoop stress in the tubing such that the hoop stress expansion members (38) expands a tubing (18) to a first diameter and the compressive yield expansion members (42) expands the tubing to a second larger diameter. Metcalfe et al further discloses the hoop stress (32) and compressive yield (42) are arranged according to the desired post expansion diameter in the tubing (18) [See col. 3 lines 6-10] and are spaced alternately in an axial direction and a circumferential direction. The hoop stress inducing expansion member (38) and the compressive



yield inducing expansion members (42) are provided on separate portions coupled together wherein a hoop stress inducing tool (30) carries the hoop stress expansion member (38) and the compressive yield inducing tool (32) carries the compressive yield expansion members (42) and are coupled by a swivel (34). The hoop stress inducing expansion member (38) are fixed relative to a remainder of the device (20) and are integrally formed with a body of the expansion device (20). The hoop stress members are rotatable with respect to the tubing and rotatably mounted on a body of the device (20). The compressive yield inducing expansion members (42) comprise of a rotary expansion member that rotates about an expansion axis. The compressive yield expansion members (42) are radially movable mounted with respect to the body of the device (20) for movement towards an expansion configuration by applied fluid pressure. The compressive yield inducing expansion members (42) is adapted to expand the tubing (18) by less than 50% or 25% or 10% of the total expansion of the tubing. It is noted that claims 2-4 and 14-19 do not further limit the structure of the expansion device but the disclosure of Metcalfe et al meets the required criteria of the claimed subject matter. [See FIGS 1-3 and col. 5 line 61 – col. 6 line 4]. Metcalfe et al discloses the invention substantially as claimed except for wherein the hoop stress inducing expansion member comprises an expansion cone. However, Metcalfe et al does state other forms of expanders may be utilized, such as an expansion mandrel. Furthermore, Clark teaches it is known in the art to provide a tube expander with an expansion cone as a hoop stress member and a compressive yield member with a plurality of rollers in order to gradually expand a portion of a tube. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to change the roller hoop stress member of Metcalfe et al



with an expansion cone as suggested by Metcalfe et al and further taught but Clark in order to gradually expand a portion of a tubing.

2. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Metcalfe et al (US Patent # 6,543,552 B1) in view of Clark (US Patent # 2,499,630) as applied to claim 1 above, and further in view of Lauritzen et al (US Patent # 6,722,441 B2). Metcalfe et al in view of Clark disclose the invention substantially as claimed except for wherein the compressive yield expansion member is rotatably mounted on a spindle. However, Lauritzen discloses a compressive yield expansion member (416) rotatably mounted on a spindle (418) to permit rotation about a rotational axis. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the compressive yield expansion members of Metcalfe et al to be mounted on a spindle in order to permit rotation about a rotational axis.

Allowable Subject Matter

Claims 5 and 45 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. With regards to claim 5, although Metcalfe et al teaches of using other forms of expanders, such as a fixed cone or expansion mandrel; Metcalfe et al fails to teach or suggest changing the order of the expander sections such that the compressive yield member is the first expansion section and the hoop stress member is the second expansion section.

1. It is the opinion of the examiner that the art of record (considered as a whole) neither anticipates nor renders obvious "expansion of the tubing to a desired final diameter is carried out using the hoop stress inducing expansion member" in combination with the rest of the claimed limitations set forth in independent claim 100.



Searching by the examiner yielded prior art as follows:

Metcalf et al discloses an apparatus for lining a wellbore having an expansion device (20) having expansion members (42) adapted to expand a tubing by inducing a compressive yield and expansion members (38) adapted to expand a tubing by inducing a hoop stress in the tubing such that the hoop stress expansion members (38) expands a tubing (18) to a first diameter and the compressive yield expansion members (42) expands the tubing to a second larger diameter wherein the expansion to a second diameter is performed by the compressive yield expansion member. Metcalf et al teaches of using other forms of expanders, such as a fixed cone or expansion mandrel, Metcalf et al fails to teach or suggest changing the order of the expander sections such that the compressive yield member is the first expansion section and the hoop stress member is the second expansion section.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Debra Wolfe whose telephone number is (571) 272-1904. The examiner can normally be reached Monday - Thursday 7am - 4:30pm with alternating Friday 7am - 3:30pm.

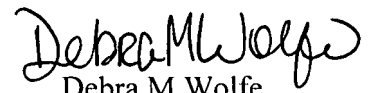
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached at (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Debra M Wolfe
Examiner
Art Unit 3725



DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

Continuation of Disposition of Claims: Claims withdrawn from consideration are 20,21,24,26-28,37-41,46-48,50,51,54-62,66-72,74-89 and 95-97.

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke.